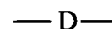
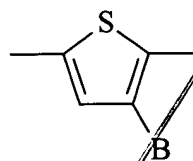
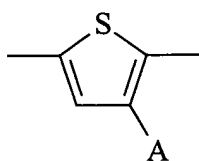


6. (Twice Amended) A thin film transistor device comprised of a substrate, a gate electrode, a gate dielectric layer, a source electrode and a drain electrode, and a semiconductor layer comprised of a polythiophene derived from a monomer segment or monomer segments containing two 2,5-thienylene segments, (I) and (II), and an optional divalent linkage D

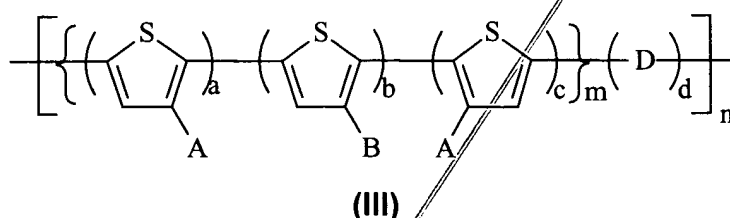


wherein A is a side chain with at least about 5 atoms; B is hydrogen or a side chain with from about 1 to about 4 atoms; and D is a divalent linkage, and wherein the number of A-substituted thienylene units (I) in the monomer segments is from about 1 to about 10, the number of B-substituted thienylene units (II) is from 0 to about 5, and the number of divalent linkages D is 0 or 1.

7. (Amended) A thin film transistor device in accordance with **claim 6** wherein A is alkyl containing from about 5 carbon atoms to about 25 carbon atoms; B is hydrogen or a short chain alkyl containing from about 1 to about 4 atoms; and D, when present, is arylene or dioxyarene, each containing from about 6 to about 40 carbon atoms, or alkylene or dioxyalkane, each containing from about 1 to about 20 carbon atoms, and wherein said source electrode and said gate dielectric layer are in contact with said semiconductive layer.

B³

16. (Amended) A thin film transistor device comprised of a substrate, a gate electrode, a gate dielectric layer, a source electrode and a drain electrode, and in contact with the source/drain electrodes and the gate dielectric layer, a semiconductor layer comprised of a polythiophene represented by Formula (III)



wherein A is a long side chain containing at least about 5 atoms; B is hydrogen or a short side chain containing from about 1 to about 4 atoms; and D is a divalent segment; a and c represent the number of A-substituted thienylenes, wherein a is at least 2; b is the number of B-substituted thienylene units and is from 1 to about 6; d is 0 or 1; and n is the degree of polymerization or the number of the monomer segments in the polythiophene.

Please add the following new claims 35-37.

B⁴

35. (New) A thin film transistor device in accordance with **claim 17** wherein A is alkoxyalkyl, a polyether chain, perhaloalkyl, a polysiloxy chain, and hydrogen, halogen, alkyl, or alkoxy.

36. (New) A thin film transistor device in accordance with **claim 17** wherein B is hydrogen, halogen, alkyl, or alkoxy.

B4
cont

37. (New) A thin film transistor device in accordance with **claim 17** wherein A is methoxybutyl, methoxyhexyl, methoxyheptyl, polyethylene oxide, perfluoroalkyl, trialkylsiloxyalkyl, and B is a halide, methoxy, ethoxy, propoxy, or butoxy.